What is claimed is:

1. An intermediate image transfer type of image forming apparatus comprising:

an image carrier;

an intermediate image transfer body;

primary image transferring means for transferring a toner image formed on said image carrier to one surface of said intermediate image transfer body; and

secondary image transferring means for transferring the toner image from said intermediate image transfer body to a recording medium;

wherein said primary image transferring means comprises primary bias applying means for applying a primary image transfer bias to the other surface of said intermediate image transfer body opposite to the one surface, and

wherein when a surface resistivity of said intermediate image transfer body is measured by a method that repeatedly applies a voltage v1 of 200 V for a period of time t1 of 60 seconds to said intermediate image transfer body and grounds said intermediate image transfer body for a period of time t2 of 10 seconds a number of times N1 of 1,000, a difference in absolute value between a logarithm of a first time of measurement and logarithm of a thousandth time of measurement is 0.5 log Ω/□ or below.

2. The apparatus as claimed in claim 1, wherein said primary bias applying means is controlled by constant-voltage control.

3. The apparatus as claimed in claim 1, wherein when a volumetric resisitivity of said intermediate image transfer body is measured by a method that repeatedly applies a voltage v2 of 50 V for a period of time t3 of 60 seconds to said intermediate image transfer body and grounds said intermediate image transfer body for a period of time t4 of 10 seconds a number of times N2 of 1,000, a difference in absolute value between a logarithm of a first time of measurement and logarithm of a thousandth time of measurement is 2.1 log Ω.cm or below.

4. The apparatus as claimed in claim 3, wherein said primary bias applying means is controlled by constant-voltage control.

5. The apparatus as claimed in claim 1, wherein said secondary image transferring means comprises secondary bias applying means for applying a secondary image transfer bias to the other surface of said intermediate image transfer body.

6. The apparatus as claimed in claim 5, wherein when a volumetric resistivity of said intermediate image transfer body is measured by a method that repeatedly applies a voltage v2 of 50 V for a period of time t3 of

60 seconds to said intermediate image transfer body and grounds said intermediate image transfer body for a period of time t4 of 10 seconds a number of times N2 of 1,000, a difference in absolute value between a logarithm of a first time of measurement and logarithm of a thousandth time of measurement is 2.1 log Ω.cm or below.

7. The apparatus as claimed in claim 6, wherein said primary bias applying means is controlled by constant-voltage control.

8. The apparatus as claimed in claim 1, wherein said image carrier and said primary image transferring means comprise a plurality of image carriers and a plurality of primary image transferring means, respectively, and wherein toner images formed on said plurality of image carriers are sequentially transferred to said intermediate image transfer body one above the other by said plurality of primary image transferring means.

9. The apparatus as claimed in claim 8, wherein said secondary image transferring means comprises secondary bias applying means for applying a secondary image transfer bias to the other surface of said intermediate image transfer body.

10. The apparatus as claimed in claim 9, wherein when a volumetric resistivity of said intermediate image transfer body is measured by a method that repeatedly

applies a voltage v2 of 50 V for a period of time t3 of 60 seconds to said intermediate image transfer body and grounds said intermediate image transfer body for a period of time t4 of 10 seconds a number of times N2 of 1,000, a difference in absolute value between a logarithm of a first time of measurement and logarithm of a thousandth time of measurement is 2.1 log Ω.cm or below.

11. The apparatus as claimed in claim 10, wherein said primary bias applying means is controlled by constant-voltage control.

12. A direct image transfer type of image forming apparatus comprising:

an image carrier;

an belt conveyor; and

image transferring means for transferring a toner image formed on said image carrier to a recording medium being conveyed by said belt conveyor, said image transferring means comprising bias applying means for applying an image transfer bias to a reverse surface of said belt conveyor opposite to a surface conveying said recording medium;

wherein when a surface resistivity of said belt conveyor is measured by a method that repeatedly applies a voltage v1 of 200 V for a period of time t1 of 60 seconds to said belt conveyor and grounds said belt conveyor for

a period of time t2 of 10 seconds a number of times N1 of 1,000, a difference in absolute value between a logarithm of a first time of measurement and logarithm of a thousandth time of measurement is 0.5 log Ω/□ or below.

13. The apparatus as claimed in claim 12, wherein when a volumetric resistivity of said belt conveyor is measured by a method that repeatedly applies a voltage v2 of 50 V for a period of time t3 of 60 seconds to said belt conveyor and grounds said belt conveyor for a period of time t4 of 10 seconds a number of times N2 of 1,000, a difference in absolute value between a logarithm of a first time of measurement and logarithm of a thousandth time of measurement is 2.1 log Ω.cm or below.

14. The apparatus as claimed in claim 12, wherein said image carrier and said image transferring means comprise a plurality of image carriers and a plurality of image transferring means, respectively, and wherein toner images formed on said plurality of image carriers are sequentially transferred to the recording medium one above the other by said plurality of image transferring means.

15. The apparatus as claimed in claim 14, wherein when a volumetric resistivity of said belt conveyor is measured by a method that repeatedly applies a voltage v2 of 50 V for a period of time t3 of 60 seconds to said belt conveyor and grounds said belt conveyor for a period of

time t4 of 10 seconds a number of times N2 of 1,000, a difference in absolute value between a logarithm of a first time of measurement and logarithm of a thousandth time of measurement is 2.1 log Ω.cm or below.

16. An intermediate image transfer type of image forming apparatus comprising:

an image carrier;

an intermediate image transfer body to which a toner image is transferred from said image carrier;

primary image transferring means for transferring the toner image from said image carrier to said intermediate image transfer body; and

secondary image transferring means for transferring the toner image from said intermediate image transfer body to a recording medium;

wherein said primary image transferring means comprises primary bias applying means for applying a primary image transfer bias to said intermediate image transfer body, and

wherein said intermediate image transfer body has a surface potential attenuation ratio that attenuates, before a portion of said intermediate image transfer body applied with the primary image transfer bias is subject to a next primary image transfer, a potential remaining on said portion to a degree not disturbing said next primary

image transfer.

17. The apparatus as claimed in claim 16, wherein said image carrier and said primary image transferring means comprise a plurality of image carriers and a plurality of primary image transferring means, respectively, and wherein toner images formed on said plurality of image carriers are sequentially transferred to said intermediate image transfer body one above the other by said plurality of primary image transferring means.

18. The apparatus as claimed in claim 17, a surface of said intermediate image transfer body to which the primary or the secondary image transfer bias is applied has a surface resistivity ranging from 10^7 Ω/□ to 10^{12} Ω/□.

19. The apparatus as claimed in claim 18, wherein a maximum amount of toner to deposit on a line portion included in a single-color toner image, which is transferred to said intermediate image transfer body, is 0.7 mg/cm².

20. The apparatus as claimed in claim 19, wherein the toner comprises spherical toner, and wherein assuming that the maximum amount of toner to deposit on the line portion of the single-color toner image and a maximum amount of toner to deposit on a solid portion of said toner image are *a* mg/cm² and *b* mg/cm², respectively, a ratio a/b

lies in a range of

$1.0 \leq a/b \leq 1.6$.

21. The apparatus as claimed in claim 19, wherein the toner comprises spherical toner, and wherein assuming that the maximum amount of toner to deposit on the line portion of the single-color toner image and a maximum amount of toner to deposit on a solid portion of said toner image are a mg/cm^2 and b mg/cm^2, respectively, a ratio a/b lies in a range of

$1.0 \leq a/b \leq 1.4$.

22. The apparatus as claimed in claim 21, wherein the toner comprises spherical toner.

23. The apparatus as claimed in claim 22, wherein the spherical toner has a mean circularity of 0.95 or above.

24. The apparatus as claimed in claim 22, wherein said intermediate image transfer body has a single-layer structure.

25. The apparatus as claimed in claim 24, wherein said intermediate image transfer body comprises a surface layer at least at a side thereof to which the toner image is transferred.

26. The apparatus as claimed in claim 25, wherein said surface layer is formed of any one of a fluorine resin, a silicone resin and a fluorine-containing material.

27. The apparatus as claimed in claim 16, wherein

said intermediate image transfer body has a surface potential attenuation ratio that attenuates a potential remaining on a portion of said intermediate image transfer body applied with the primary image transfer bias V_o to $V_o/2$ in 5 seconds.

28. The apparatus as claimed in claim 27, wherein said image carrier and said primary image transferring means comprise a plurality of image carriers and a plurality of primary image transferring means, respectively, and wherein toner images formed on said plurality of image carriers are sequentially transferred to said intermediate image transfer body one above the other by said plurality of primary image transferring means.

29. The apparatus as claimed in claim 28, a surface of said intermediate image transfer body to which the primary or the secondary image transfer bias is applied has a surface resistivity ranging from 10^7 Ω/□ to 10^{12} Ω/□.

30. The apparatus as claimed in claim 29, wherein a maximum amount of toner to deposit on a line portion included in a single-color toner image, which is transferred to said intermediate image transfer body, is 0.7 mg/cm^2.

31. The apparatus as claimed in claim 30, wherein the toner comprises spherical toner, and wherein assuming

that the maximum amount of toner to deposit on the line portion of the single-color toner image and a maximum amount of toner to deposit on a solid portion of said toner image are a mg/cm^2 and b mg/cm^2, respectively, a ratio a/b lies in a range of

$1.0 \leq a/b \leq 1.6$.

32. The apparatus as claimed in claim 30, wherein the toner comprises spherical toner, and wherein assuming that the maximum amount of toner to deposit on the line portion of the single-color toner image and a maximum amount of toner to deposit on a solid portion of said toner image are a mg/cm^2 and b mg/cm^2, respectively, a ratio a/b lies in a range of

$1.0 \leq a/b \leq 1.4$.

33. The apparatus as claimed in claim 32, wherein the toner comprises spherical toner.

34. The apparatus as claimed in claim 33, wherein the spherical toner has a mean circularity of 0.95 or above.

35. The apparatus as claimed in claim 33, wherein said intermediate image transfer body has a single-layer structure.

36. The apparatus as claimed in claim 35, wherein said intermediate image transfer body comprises a surface layer at least at a side thereof to which the toner image is transferred.

37. The apparatus as claimed in claim 36, wherein said surface layer is formed of any one of a fluorine resin, a silicone resin and a fluorine-containing material.

38. The apparatus as claimed in claim 16, wherein assuming that a period of time between preceding primary image transfer and following image transfer is T seconds, said intermediate image transfer body has a surface potential attenuation ratio that attenuates a potential remaining on a portion of said intermediate image transfer body applied with the primary image transfer bias V_0 to $V_0/2$ or below in T seconds.

39. The apparatus as claimed in claim 38, wherein said image carrier and said primary image transferring means comprise a plurality of image carriers and a plurality of primary image transferring means, respectively, and wherein toner images formed on said plurality of image carriers are sequentially transferred to said intermediate image transfer body one above the other by said plurality of primary image transferring means.

40. The apparatus as claimed in claim 39, a surface of said intermediate image transfer body to which the primary or the secondary image transfer bias is applied has a surface resistivity ranging from 10^7 Ω/□ to 10^{12} Ω/□.

41. The apparatus as claimed in claim 40, wherein

a maximum amount of toner to deposit on a line portion included in a single-color toner image, which is transferred to said intermediate image transfer body, is 0.7 mg/cm^2.

42. The apparatus as claimed in claim 41, wherein the toner comprises spherical toner, and wherein assuming that the maximum amount of toner to deposit on the line portion of the single-color toner image and a maximum amount of toner to deposit on a solid portion of said toner image are *a* mg/cm^2 and *b* mg/cm^2, respectively, a ratio a/b lies in a range of

$1.0 \leq a/b \leq 1.6$.

43. The apparatus as claimed in claim 41, wherein the toner comprises spherical toner, and wherein assuming that the maximum amount of toner to deposit on the line portion of the single-color toner image and a maximum amount of toner to deposit on a solid portion of said toner image are *a* mg/cm^2 and *b* mg/cm^2, respectively, a ratio a/b lies in a range of

$1.0 \leq a/b \leq 1.4$.

44. The apparatus as claimed in claim 43, wherein the toner comprises spherical toner.

45. The apparatus as claimed in claim 44, wherein the spherical toner has a mean circularity of 0.95 or above.

46. The apparatus as claimed in claim 44, wherein

said intermediate image transfer body has a single-layer structure.

47. The apparatus as claimed in claim 46, wherein said intermediate image transfer body comprises a surface layer at least at a side thereof to which the toner image is transferred.

48. The apparatus as claimed in claim 47, wherein said surface layer is formed of any one of a fluorine resin, a silicone resin and a fluorine-containing material.

49. An intermediate image transfer type of image forming apparatus comprising:

an image carrier;

an intermediate image transfer body to which a toner image is transferred from said image carrier;

primary image transferring means for transferring the toner image from said image carrier to said intermediate image transfer body; and

secondary image transferring means for transferring the toner image from said intermediate image transfer body to a recording medium;

wherein said primary image transferring means comprises primary bias applying means for applying a primary image transfer bias to said intermediate image transfer body,

wherein said secondary image transferring means

comprises secondary bias applying means for applying a secondary image transfer bias to said intermediate image transfer body, and

wherein said intermediate image transfer body has a surface potential attenuation ratio that attenuates, before a portion of said intermediate image transfer body applied with the secondary image transfer bias is subject to a next primary image transfer, a potential remaining on said portion to a degree not disturbing said next primary image transfer.

50. The apparatus as claimed in claim 49, wherein said intermediate image transfer body has a surface potential attenuation ratio that attenuates a potential remaining on a portion of said intermediate image transfer body applied with the secondary image transfer bias V_1 to $V_1/2$ in 5 seconds.

51. The apparatus as claimed in claim 50, a surface of said intermediate image transfer body to which the primary or the secondary image transfer bias is applied has a surface resistivity ranging from 10^7 Ω/□ to 10^{12} Ω/□.

52. The apparatus as claimed in claim 51, wherein a maximum amount of toner to deposit on a line portion included in a single-color toner image, which is transferred to said intermediate image transfer body, is 0.7 mg/cm².

53. The apparatus as claimed in claim 52, wherein the toner comprises spherical toner, and wherein assuming that the maximum amount of toner to deposit on the line portion of the single-color toner image and a maximum amount of toner to deposit on a solid portion of said toner image are *a* mg/cm^2 and *b* mg/cm^2, respectively, a ratio a/b lies in a range of

$1.0 \leq a/b \leq 1.6$.

54. The apparatus as claimed in claim 52, wherein the toner comprises spherical toner, and wherein assuming that the maximum amount of toner to deposit on the line portion of the single-color toner image and a maximum amount of toner to deposit on a solid portion of said toner image are *a* mg/cm^2 and *b* mg/cm^2, respectively, a ratio a/b lies in a range of

$1.0 \leq a/b \leq 1.4$.

55. The apparatus as claimed in claim 54, wherein the toner comprises spherical toner.

56. The apparatus as claimed in claim 55, wherein the spherical toner has a mean circularity of 0.95 or above.

57. The apparatus as claimed in claim 55, wherein said intermediate image transfer body has a single-layer structure.

58. The apparatus as claimed in claim 57, wherein said intermediate image transfer body comprises a surface

layer at least at a side thereof to which the toner image is transferred.

59. The apparatus as claimed in claim 58, wherein said surface layer is formed of any one of a fluorine resin, a silicone resin and a fluorine-containing material.

60. The apparatus as claimed in claim 49, wherein assuming that a period of time between secondary image transfer and primary image transfer following said secondary image transfer is U seconds, said intermediate image transfer body has a surface potential attenuation ratio that attenuates a potential remaining on a portion of said intermediate image transfer body applied with the secondary image transfer bias V_1 to $V_2/2$ or below in T seconds.

61. The apparatus as claimed in claim 60, a surface of said intermediate image transfer body to which the primary or the secondary image transfer bias is applied has a surface resistivity ranging from 10^7 Ω/□ to 10^{12} Ω/□.

62. The apparatus as claimed in claim 61, wherein a maximum amount of toner to deposit on a line portion included in a single-color toner image, which is transferred to said intermediate image transfer body, is 0.7 mg/cm^2.

63. The apparatus as claimed in claim 62, wherein the toner comprises spherical toner, and wherein assuming

that the maximum amount of toner to deposit on the line portion of the single-color toner image and a maximum amount of toner to deposit on a solid portion of said toner image are *a* mg/cm^2 and *b* mg/cm^2, respectively, a ratio a/b lies in a range of

$1.0 \leq a/b \leq 1.6$.

64. The apparatus as claimed in claim 62, wherein the toner comprises spherical toner, and wherein assuming that the maximum amount of toner to deposit on the line portion of the single-color toner image and a maximum amount of toner to deposit on a solid portion of said toner image are *a* mg/cm^2 and *b* mg/cm^2, respectively, a ratio a/b lies in a range of

$1.0 \leq a/b \leq 1.4$.

65. The apparatus as claimed in claim 64, wherein the toner comprises spherical toner.

66. The apparatus as claimed in claim 65, wherein the spherical toner has a mean circularity of 0.95 or above.

67. The apparatus as claimed in claim 65, wherein said intermediate image transfer body has a single-layer structure.

68. The apparatus as claimed in claim 67, wherein said intermediate image transfer body comprises a surface layer at least at a side thereof to which the toner image is transferred.

69. The apparatus as claimed in claim 68, wherein said surface layer is formed of any one of a fluorine resin, a silicone resin and a fluorine-containing material.